WHAT IS CLAIMED IS:

1.   A disk device comprising:
a disk having predetermined information
sectors recorded at a constant interval;
a head scanning said disk; and
a disturbance-compensation unit obtaining
an amount of a disturbance based on a time-interval
measurement in reading said predetermined
information sectors so as to compensate a position
of said head according to the amount of the
disturbance.

2.   The disk device as claimed in claim 1,
wherein said disturbance-compensation unit
compensates a tracking error signal according to the
amount of the disturbance, the tracking error signal
corresponding to a positional error of said head on
said disk.

3.   The disk device as claimed in claim 1,
wherein said disturbance-compensation unit includes:
an angular-acceleration calculating unit
calculating a rotational angular acceleration of a
motor based on the time-interval measurement, the
motor rotating said disk; and
a disturbance-compensation amount
calculating unit calculating a disturbance-

compensation amount based on said rotational angular
acceleration so as to compensate the position of
said head according to said disturbance-compensation
amount.

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      4.   The disk device as claimed in claim 3,

10 wherein said disturbance-compensation unit further
includes a filter filtering a value of said
rotational angular acceleration including a
vibration of the disturbance so as to supply said
value to said disturbance-compensation amount

15 calculating unit.

20   5.   The disk device as claimed in claim 1,
wherein said disturbance-compensation unit includes:
      an angular-velocity calculating unit
calculating a rotational angular velocity of a motor
based on the time-interval measurement, the motor

25 rotating said disk;
      an angular-acceleration calculating unit
calculating a rotational angular acceleration of
said motor based on said rotational angular
velocity; and

30   a disturbance-compensation amount
calculating unit calculating a disturbance-
compensation amount based on said rotational angular
acceleration so as to compensate the position of
said head according to said disturbance-compensation

35 amount.

6. The disk device as claimed in claim 5, wherein said disturbance-compensation unit further includes a filter filtering a value of said rotational angular velocity including a vibration of

5   the disturbance so as to supply said value to said angular-acceleration calculating unit.

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7. The disk device as claimed in claim 5, wherein said angular-acceleration calculating unit is composed of a differential filter.

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8. The disk device as claimed in claim 1, wherein said disturbance-compensation unit includes

20   a repeatable run-out amount obtaining unit obtaining a repeatable run-out amount of said head in relation to said disk so as to adjust the amount of the disturbance by the repeatable run-out amount.

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9. The disk device as claimed in claim 8, wherein said repeatable run-out amount obtaining

30   unit obtains said repeatable run-out amount by preliminarily detecting a deviation amount of said head affected by few disturbances, said head deviating from a track of said disk by the deviation amount.

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10. The disk device as claimed in claim 8, wherein said repeatable run-out amount obtaining unit calculates an average of repeatable run-out amounts of said head measured at a plurality of points on said disk so as to adjust the amount of the disturbance by said average.

11. The disk device as claimed in claim 8, wherein said repeatable run-out amount obtaining unit divides said disk into a plurality of zones so as to obtain the repeatable run-out amount in each of said zones.

12. A disturbance compensation method for a disk device including a disk having predetermined information sectors recorded at a constant interval, and a head scanning said disk, the method comprising the steps of:
obtaining an amount of a disturbance based on a time-interval measurement in reading said predetermined information sectors; and
compensating a position of said head according to the amount of the disturbance.

13. The disturbance compensation method as claimed in claim 12, further comprising the step of compensating a tracking error signal according to the amount of the disturbance, the tracking error

signal corresponding to a positional error of said head on said disk.

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14. The disturbance compensation method as claimed in claim 12, further comprising the steps of:

10 calculating a rotational angular acceleration of a motor based on the time-interval measurement, the motor rotating said disk; and

calculating a disturbance-compensation amount based on said rotational angular acceleration 15 so as to compensate the position of said head according to said disturbance-compensation amount.

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15. The disturbance compensation method as claimed in claim 12, further comprising the steps of:

calculating a rotational angular velocity 25 of a motor based on the time-interval measurement, the motor rotating said disk;

calculating a rotational angular acceleration of said motor based on said rotational angular velocity; and

30 calculating a disturbance-compensation amount based on said rotational angular acceleration so as to compensate the position of said head according to said disturbance-compensation amount.

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16.   The disturbance compensation method as claimed in claim 12, further comprising the steps of:

obtaining a repeatable run-out amount of said head in relation to said disk; and

adjusting the amount of the disturbance by the repeatable run-out amount.

17.   The disturbance compensation method as claimed in claim 16, further comprising the step of preliminarily detecting a deviation amount of said head affected by few disturbances, said head deviating from a track of said disk by the deviation amount, so as to obtain said repeatable run-out amount.

18.   The disturbance compensation method as claimed in claim 16, further comprising the step of calculating an average of repeatable run-out amounts of said head measured at a plurality of points on said disk so as to adjust the amount of the disturbance by said average.

19.   The disturbance compensation method as claimed in claim 16, further comprising the step of dividing said disk into a plurality of zones so as to obtain the repeatable run-out amount in each of said zones.